

ACC NR: AT6007147

(N)

SOURCE CODE: UR/3148/60/000/004/0042/0047

AUTHOR: Lipskaya, N.V.; Deniskin, N.A.; Yegorov, Yu.M.; Shel'ting, V.P.

ORG: None

TITLE: A stationary microvariational station with photomultiplication

SOURCE: AN SSSR. Mezhdovedomstvennyy geofizicheskiy komitet. III razdel programmy  
MGG: Geomagnetizm i zemnyye toki. Sbornik statey, no. 4, 1960, 42-47

TOPIC TAGS: geomagnetic instrumentation, magnetometer, recording precision magnetometer, *GEOMAGNETIC MEASUREMENT*

ABSTRACT: This paper is a description of a sensitive precision magnetographic station for continuous recording of three geomagnetic variation components. The magnetometers have a resolving power of a few thousandth gamma, at frequencies to 1c/sec. The sensor is a low inertia (under .001 gm.cm<sup>3</sup>) quartz torsion balance, with a moving magnet attached to a light mirror. Oscillations of a reflected light beam are converted into a photocurrent, intensified by a photomultiplier and amplified to drive a recorder. Output is on paper, with 1mm equivalent to .005 gamma. Constant field compensation is provided by magnets and Helmholtz coils. Special coils supply noise suppression feedback and stabilize the sensitivity. Automatic range switching and a central control and sensitivity monitoring unit are provided. Orig. art. has 4 figures

SUB CODE: 08/

SUBM DATE: None/

ORIG REF: 003

Card 1/1

L0226

S/169/62/000/007/076/149  
D228/D307

3.9110

AUTHORS: Lipskaya, N. V., Deniskin, N. A. and Yegorov, Yu. M.

TITLE: Constructing electromagnetic sounding curves from the data of observing microvariations in the earth's natural electromagnetic field

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 33-34, abstract 7A218 (V sb. Vopr. teorii i praktiki elektrometrii, M., AN SSSR, 1961, 41-55)

TEXT: The study of variations in the earth's natural electromagnetic field and the determination of the quantitative correlations between its magnetic and electric components underlie the magnetotelluric method. This provides the possibility of establishing the relationship between the field's recorded values and the geologic structure of ground at the point of observation. It is noted that the magnetotelluric method differs from other electric prospecting methods in the absence of an artificial field source, in the great depth of propagation of the natural field variations, and in  
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Constructing electromagnetic sounding... S/169/62/000/007/076/149  
D228/D307

the simultaneous recording of electric and magnetic variations on the requisite frequency band. This enables the whole frequency sounding curve to be constructed from observations made at one point. The depth of propagation of the natural field variations grows as the period of the variations increases; therefore, the frequency band of the recorded variations determines the equipment's field of application. There are induction-type installations and equipment, based on the magnetostatic principle. The field quartz microvariation station of the Institut fiziki Zemli AN SSSR (Institute of Physics of the Earth, AS USSR) is described. The station is suitable for continuously recording the three magnetic field components  $H_x$ ,  $H_y$ , and  $H_z$  in the frequency range from 1 to several thousand parts of a hertz. It consists of a receiving part (microvariometer, clarifier, photomultiplier); and control, recording, and power-supply panels, placed 30 m from the receiving part. Tests of the apparatus confirmed that there is a linear relationship between the amplitude of the changes in the magnetic field acting on the microvariometer and the values of the recorded

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photocurrent. The current recording curve is reproduced on a certain scale without greatly distorting the curve for the microvariations of the measured field components with a variational range of up to 2 - 3% and with periods, varying from 3 sec to several minutes. The ratio of the ranges of variations, recorded by two installations, remains constant with a precision of up to 4 - 8%. The amplitude and phase characteristics of the field equipment are cited, as are vector diagrams, characterizing the instantaneous positions and the magnitude of the horizontal components of the magnetic and electric field vectors for the variations with periods of T equalling 32 and 210 sec. The authors consider examples of the recording of electromagnetic field variations at two points of the Dneprovsko-Donetskaya Depression with known geologic sections. When constructing the frequency sounding curves ratios were calculated for the amplitudes of the variations of two mutually perpendicular components of the electric and magnetic fields; these were recorded at the same moment of time and have an identical period. The impedance was determined from the formulas: X

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$$\rho_K = \frac{T}{5} \left| \frac{E_x}{H_y} \right|^2 \quad \text{and} \quad \rho_K = \frac{T}{5} \left| \frac{E_y}{H_x} \right|^2$$

The experimental curves of  $\rho_K$  were compared with the theoretical curves of self-potential field electrosounding for a three-layer medium; these latter curves were calculated for  $\mu = \rho_2/\rho_1 = 16$  and  $32$ ,  $v = h_2/h_1 = 1.0$  and  $1.5$ ,  $\rho_3 = \infty$ ,  $h_3 = \infty$ . The comparison gave satisfactory results. It is noted that despite the equipment's ability to record microvariations with periods of down to 1 sec, no variation with a period of below 10 sec was recorded in the operations. The value  $T = 10$  sec appears to be the boundary of a certain unique "absorption band", whose authenticity of existence can only be confirmed by subsequent observations. [Abstracter's note: Complete translation.]

Card 4/4

TIKHONOV, A.N.; LIPSKAYA, N.V.; DENISKIN, N.A.; NIKIFOROVA, N.N.; LOMAKINA,  
Z.D.

Electromagnetic sounding of deep layers of the earth. Dokl. AN  
SSSR 140 no.3:587-590 S '61. (MIRA 14:9)

1. Institut fiziki Zemli im. O. Yu. Shmidta AN SSSR; 2. Chlen-  
krooespondent AN SSSR (for Tikhonov).  
(Magnetism, Terrestrial)

ACC NR: AP6015682 (N) SOURCE CODE: UR/0413/66/000/009/0079/0079

INVENTOR: Vikhorev, V. G.; Deniskin, V. P.; Trakhtenberg, L. I.

ORG: None

TITLE: An eddy current instrument for measuring the thickness and resistivity of sheet material. Class 42, No. 181306

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 79

TOPIC TAGS: eddy current, electronic measurement, resistivity

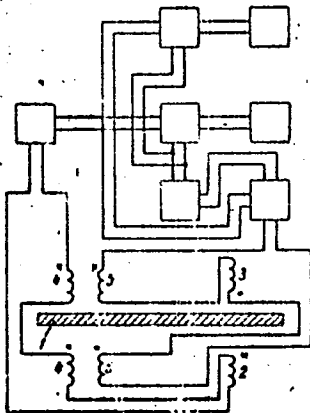
ABSTRACT: This Author's Certificate introduces an eddy current instrument for measuring the thickness and resistivity of sheet material. The unit contains an rf current generator, two overlapping eddy current pickups, phase detectors which are sensitive to changes in the thickness and resistivity of the sheet material and an indicator. The unit is designed for eliminating the effect which changes in the gap between the pickups and the sheet being inspected have on instrument readings. The device contains a shielded pickup with current and measurement coils with the same geometric specifications as the corresponding coils in the overlapping pickups, while the measurement coil in the shielded pickup has three times as many turns as that in the overlapping pickup. The current coils in all pickups are connected in series and are all in phase. The measurement coils in the overlapping pickups are likewise connected

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UDC: 531.717.11.621.317.33

ACC NR: AP6015682

in series and in phase with each other and in series and opposition with the measurement coil of the shielded pickup.



1—sheet being inspected; 2—current coil of the shielded pickup; 3—measurement coil of the shielded pickup; 4—current coils of the overlapping pickups; 5—measurement coils of the overlapping pickups

SUB CODE: 09/ SUBM DATE: 12Jul65

Card 2/2



DEMISIUK, Zygmunt

Flora of the vicinity of Lesna Podlaska. Biologia Poznan no.3:  
31-66 '61.

1. Institute of Plant Systematics and Geography, A. Mickiewicz  
University, Poznan

89754

S/169/61/000/002/007/039  
A005/A001

3,9100

Translation from: Referativnyy zhurnal, Geofizika, 1961, No. 2, p. 3, # 2G16

AUTHORS: Deniskin, N. A., Yegorov, Yu. M., Lipskaya, N. V., Osinskaya, S. V.,  
Kheresko, G. V., Shel'ting, V. F.

TITLE: A Magnetic Station With a Quartz Microvariometer

PERIODICAL: V sb.: "Vozmushcheniya elektromagnitn. polya Zemli". Moscow, AN SSSR  
1960, pp. 57-62 (English summary)

TEXT: It is reported on the development and designing of a magnetic micro-variation station on the basis of the low-inertial quartz variometer which was proposed by V. F. Shel'ting (see abstr. No. 2G15). The station is intended for continuous recording of the variations of all three components of the Earth's magnetic field with amplitudes of the order of  $10^{-7}$  oe and more, and duration of from 1 sec. to many minutes. The equipment consists of three main assemblies: 1) the microvariometers of X, Y, Z; 2) the photographic recorder with 200 mm in paper width and 90 mm/hr in speed, which has also a device marking the time; 3) an automatic band switch relay operated by two photoresistances and permitting the rays to return in jump onto the phototape after reflection from the microvariometer

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89754

A Magnetic Station With a Quartz Microvariometer

S/169/61/000/002/007/039  
A005/A001

mirror in case of its departure from the tape under the effect of an intense variation of the field. If operating with the automatic banswitch relay, large angular deflections of the moving system of the responsive element are excluded, which is important for the stabilization of the graduation value. As a result of the tests of the station, which were conducted in autumn 1957, it turned out that: 1) the moment of inertia of the moving system is equal to  $10^{-5}$  g cm<sup>2</sup>; 2) the natural periods of the oscillations of the different variometers lie within the limits of  $T_0 \approx 1 - 2$  sec at a graduation value of the order of  $\varepsilon \approx 0.05$  γ/arc minute; 3) the magnetic moments of the moving magnets amount to about  $m = 0.5-1$  electromagnetic units; 4) the shape of the frequency characteristic of the device testifies that the graduation value is constant for all periods longer than two or three seconds and does not depend on the period of the perturbing force; 5) the amplitude characteristic is linear within the limits of the scale width. There are 7 references.

U. Fastovskiy

Translation from: This is the full translation of the original Russian abstract.

Card 2/2

LIPSKAYA, N.V.; DENISKIN, N.A.; YEGOROV, Yu.M.

Results of electromagnetic sounding in the central area of the  
Dnieper-Donets Depression. Izv. AN SSR. Ser. geofiz. no. 3:407-  
411 Apr '61. (MIRA 14:2)

1. Institut fiziki Zemli AN SSSR.  
(Homarovka Region (Chernigov Province)--Electromagnetic prospecting)

L 1093-66 EWT(1)/EWA(h)

ACC NR: AP5024987

SOURCE CODE: UR/0286/65/000/016/0048/0048

INVENTOR: Deniskin, V. P.; Shkarlet, Yu. M.

ORG: none

TITLE: Contactless phase inverter. Class 21, No. 173819 [announced by Organization of the State Committee on Radio Electronics, SSSR (Organizatsiya gosudarstvennogo komiteta po radioelektronike SSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 48

TOPIC TAGS: phase shift, contactless phase shifter 25

ABSTRACT: This Author Certificate introduces a contactless phase inverter consisting of basic and compensating coils mounted beside a sliding support coated with a current conducting material. To increase the stability of the angle of phase shift, the amplitude of the output voltage, and the angle of the phase shift itself, two pairs of spaced basic coils and compensating coils are used. The primary basic coil and accompanying compensating coils are connected in series and out of phase; the second pair is connected in series and in phase. The thickness of the current-conducting layer on the sliding support increases linearly in the direction of the axis of symmetry of the spaced coils. Orig. art. has: 1 figures [JR]

SUB CODE: EC/ SUBM DATE: 27Dec63/ ORIG REF: 000/ CTH REF: 000/ ATD PRESS: 4/29

BVK

Cord 1/1

UDC: 621.314.25

ACCESSION NR: AP4004145

S/0294/63/001/002/0238/0246

AUTHORS: Subbotin, V. I.; Minashin, V. Ye.; Deniskin, Ye. I.

TITLE: Heat transfer in flow across banks of tubes

SOURCE: Teplofizika vy\*sokikh temperatur, v. 1, no. 2, 1963, 238-246

TOPIC TAGS: heat transfer, liquid metal, transverse flow, reactor coolant, heat exchanger, coolant, thermal conductivity

ABSTRACT: A brief review is presented of heat exchange research on transverse flow of water and liquid metal over bundles of tubes, carried out at the Fiziko-energeticheskiy institut (Physics and Power Engineering Institute) in 1958--1962. The measurement procedures are briefly described. The results are summarized as follows: 1. The wall temperature of the heat-releasing tube varies with time and the temperature pulsations are due to instability of liquid flow. 2. The average heat transfer coefficient for pure liquid metals can be calculated accurate to  $\pm 30\%$ , for a wide range of different tube-bundle geometries, from the formula  $Nu = Pe^{0.5}$  ( $Pe = 150--7,000$ ), where the average velocity is calculated in the narrow sec-

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ACCESSION NR: AP4004145

tion of the bundle, and the linear dimension is chosen to be the tube diameter. 3. The relative temperature profile varies little over the perimeter of the tube with variation of the bundle geometry and rate of coolant flow. 4. The wall temperature pulsations are assumed to be due to instability of some layer next to the wall. 5. The temperature pulsations depend strongly on the bundle geometry. 6. The relative pulsations depend little on the velocity. It is therefore recommended that until more detailed research is made each individual bundle be characterized by the maximum temperature pulsation. 7. The temperature pulsations depend linearly on the heat flow when the physical properties change little. 8. The temperature pulsation frequency increases with increasing velocity and ranges from 0.01 to 5 cps. 9. Below 0.5 or 1 cps the temperature pulsations depend little on the tube material and vary little over the thickness (2 mm). 10. Insulating films affect temperature pulsations with frequencies lower than 0.5 cps little, and the temperature gradient changes in this case by a factor 2--3. 11. The character of the temperature pulsations depends strongly on the bundle

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ACCESSION NR: AP4004145

geometry and on the velocity. 12. The absolute values of the temperature pulsations are nearly the same for flow of water or liquid metal. Orig. art. has: 6 figures, 4 formulas, and 1 table.

ASSOCIATION: Fiziki-energeticheskiy institut (Physics and Power Engineering Institute)

SUBMITTED: 11Jun63

DATE ACQ: 26Dec63

ENCL: 00

SUB CODE: PR, AI

NO REF SOV: 013

OTHER: 009

Card 3/3



L 12945-63

EWI(1)/BDS/EB-2/ES(s)-2

AFTTC/AFGC/ASD/ESD-3/SSD Pt-4

EJP(C)

ACCESSION NR: AP3004090

S/0108/63/018/007/0038/0048

65

AUTHOR: Deniskin, Yu. D.

TITLE: H-shaped metal-dielectric waveguide with two dielectric plates

SOURCE: Radiotekhnika, v. 18, no. 7, 1963, 38-48

TOPIC TAGS: metal-dielectric waveguide, waveguide plate breakdown strength, waveguide equivalent resistance, longitudinal magnetic wave, longitudinal electric wave, waveguide loss

ABSTRACT: The advantages of an H-shaped metal-dielectric waveguide with two dielectric plates over an H-shaped waveguide with one plate are discussed. The possibility of the existence of longitudinal magnetic and electric waves is investigated and curves are plotted which make it possible to calculate breakdown strength, losses in metal and dielectric plates, the width of metal plates, and the equivalent resistance in the presence of longitudinal magnetic waves. The breakdown strength of teflon-4 dielectric plates in the presence of longitudinal electric waves is also discussed. The following conclusions were reached:  
1) The use of H-shaped waveguides with two dielectric plates results in a

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L 12945-63

ACCESSION NR: APJ004090

breakdown strength double that of a waveguide with one dielectric plate. 2) Losses in a waveguide with two dielectric plates do not exceed those occurring in a guide with one plate and may be made even lower. 3) When low losses are important, preference should be given to longitudinal magnetic waves. When losses are of secondary importance, it is expedient to use longitudinal electric waves at which breakdown strength is at least twice as high as breakdown strength at longitudinal magnetic waves. 4) In principle, it is possible to utilize quadrupole waves which result in low losses at relatively high  $a/\lambda$  values while preserving high breakdown strength where  $a$  is the plate thickness. Orig. art. has: 14 figures and 10 formulas.

ASSOCIATION: none

SUBMITTED: 24Jan62

DATE ACQ: 05Aug63

ENCL: 00

SUB CODE: GE

NO REF SOV: 002

OTHER: 004

Card 2/2

L 25498-66 EWT(1) IJP(c) AT

ACC NR: AP6011397

SOURCE CODE: UR/0057/66/036/003/0508/0510

AUTHOR: Deniskin, Yu.D.

ORG: Moscow Power Engineering Institute (Moskovskiy energeticheskiy institut)

TITLE: The influence of penetration of electrons into a solid body on the heating of its surface by pulsed electron bombardment

SOURCE: Zhurnal tekhnicheskoy fiziki, v.36, no. 3, 1966, 508-510

TOPIC TAGS: electron beam, electron energy, metal surface, heating, heat conduction, electronic equipment, electron bombardment, surface property, temperature distribution

ABSTRACT: The author calculates the temperature rise at the surface of a body due to bombardment by a short pulse of electrons, taking into account the fact that the electrons penetrate into the target and deliver some of their heat below the surface. The effect of electron penetration on the surface temperature rise is significant when the electron penetration depth is comparable with the depth reached as a result of conduction during the pulse by the heat delivered at the surface. The calculation was undertaken because this condition obtains in some modern high power high voltage pulsed electronic equipment. The calculation is straightforward. It is found that the true temperature rise is given by the expression  $TG$ , where  $T$  is the temperature rise calculated on the assumption that all the heat is delivered at the surface and  $G$  is a correction factor less than unity that depends both on the parameter  $d/(ct)^{1/2}$ .

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UDC: 537.533.79

L 25498-66

ACC NR: AP6011397

where  $d$  is the mean electron penetration depth,  $c$  is the thermal conductivity, and  $t$  is the duration of the pulse, and on the form of the function giving the fraction of its energy that the electron delivers to the target as heat at different depths below the surface. The factor  $G$  was calculated numerically as a function of  $d/(ct)^{1/2}$  for different assumptions concerning the distribution function, including those proposed by A.F. Makhov (FTT, 2, 2176, 1960) and by A.Ya. Vyatskiy and A.N. Pilyankevich (FTT, 5, 2285, 1963), and the results are presented graphically. As a numerical example it is noted that according to current data on electron penetration depths, the factor  $G$  for one microsecond pulse on copper is approximately 0.975 for 20 keV electrons and 0.26 for 200 keV electrons. Orig. art. has: 7 formulas and 2 figures.

SUB CODE: 20,09

SUBM DATE: 21Jun65

ORIG. REF: 011

OTH REF: 004

Card 2/2 110

POKROVSKIY, Ye.A.; UNTERBERGER, V.K.; DENISKINA, G.P.

Measures for controlling the San Jose scale. Zashch. rast.  
ot vred. i bol. 5 no.1:27 Ja '60. (MIRA 14:6)  
(San Jose scale)

DENISKO, N.P., inzh.

Accuracy of the source data in electric traction calculations.  
Trudy Khab. IIT no.16:5-17 / '64 (MIRA 18:2)

Choice of the step of integration in the solution of the principal equation of motion of a train using Euler's numerical method. Ibid.:18-31

16 (1)

Sov/21-59-6-3/27

AUTHOR: Denisko, S. V.

TITLE: Equiareal Interpretations of a Lobachevskiy Plane

PERIODICAL: Dopovidi Akademii Nauk Ukrain's'koi RSR, 1959, Nr 6,  
pp 574 - 576 (USSR)

ABSTRACT: This article deals with two reflections of a Lobachevskiy plane on a Euclidian plane, at which the areas of the reflected figures are retained. These reflections allow a ready solution of certain problems of Lobachevskiy's geometry. Using the Beltrami formula

$$S = k^2 \iint \frac{r dr d\varphi}{B(1 - r^2)^{\frac{3}{2}}},$$

as a point of departure, the author, after a series of calculations, arrives at the final formula

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SOV/21-59-6-3/27

Equiareal Interpretations of a Lobachevskiy Plane

$$S = \frac{ak^2}{h} = kl.$$

There are 2 diagrams and 2 Soviet references.

ASSOCIATION: Kiyevskiy politekhnicheskii institut (Kiyev Polytechnical Institute)

PERIODICAL: By V. G. Gnedenko, Member, AS UkrSSR

SUBMITTED: December 26, 1958

Card 2/2



DENISKO, S.V.

Use of bundles of parallel straight lines inequiareal representations of surfaces in which the curvature lines of one family lie in parallel planes. Dop.AN URSR no.10:1311-1314 '60.  
(MIRA 13:11)

1. Kiyevskiy politekhnicheskij institut. Predstavleno akademikom  
AN USSR B.V.Gnedenko.  
(Surfaces, Representation of)

DENISKO, S.V. [Denysko, S V.]

A class of metrical bends of linear congruences. Dop. AN URSR  
no.3:288-290 '65. (MIRA 18:3)

1. L'vovskiy gosudarstvennyy universitet.

DENISE AMOVA, S.G.

7 7  
 "Addition of alcohol to isopropyl oxide. A. N. Pudovik and S. G. Denisova (State Univ., Kazan), *Zhur. Obshch. Khim.*, 27, 2303-7 (1957); cf. Petrov, *C.A.*, 43, 8156; Kadesch, *C.A.*, 40, 14507. To 185 ml. dry MeOH was added 0.15 ml.  $\text{BF}_3 \cdot \text{Et}_2\text{O}$  followed, with cooling, by 34 g. 1,2-epoxy-2-methyl-3-butene (I) and after 4 hrs. on a steam bath the mixt. gave 13 g. 2-methoxy-2-methyl-3-butene-1-ol (II),  $b_p$  75-8°,  $n_D^{20}$  1.4390,  $d_4^{20}$  0.9217, and 4.5 g. mixed products,  $b_p$  90-170°. II with  $\text{BzCl}$  and  $\text{PhNMMe}_2$  in 1 hr. at 50° gave 36%  $\text{Bz}$  deriv. I (34 g.) added to 1 g. Na in 200 ml. dry MeOH and heated 10 hrs. on a steam bath gave 15.6 g. 1-methoxy-2-methyl-3-butene-2-ol,  $b_p$  62.5-3°,  $n_D^{20}$  1.4285,  $d_4^{20}$  0.9183, and 1.7 g. II. Similarly  $\text{BF}_3 \cdot \text{Et}_2\text{O}$ , I, and EtOH gave 2-methoxy-2-methyl-3-butene-1-ol,  $b_p$  52.3-3.3°, 1.4580, 0.9227, while a reaction with EtOH contg. some Na gave but small amt. of this product, and much 2-methyl-1-ethoxy-3-butene-2-ol,  $b_p$  45-6°, 1.4720, 0.8971. Similarly, I and BuOH in presence of  $\text{BF}_3 \cdot \text{Et}_2\text{O}$  gave mainly 2-butoxy-2-methyl-3-butene-1-ol (III),  $b_p$  29-1°, 1.4300, 0.9030, and a product of further addn.,  $\text{C}_{12}\text{H}_{24}\text{O}_2$ ,  $b_p$  224-5°, 1.4550, 0.9580; I and BuOH contg. a little Na gave mostly 1-butoxy-2-methyl-3-butene-2-ol,  $b_p$  69.5-70.5°, 1.4303, 0.8777, and a little III. I and iso-BuOH with  $\text{BF}_3 \cdot \text{Et}_2\text{O}$  gave 2-isobutoxy-2-methyl-3-butene-1-ol,  $b_p$  67-8°, 1.4480, 0.9001, while iso-BuOH-iso-BuONa treatment gave mainly 1-isobutoxy-2-methyl-3-butene-2-ol,  $b_p$  58.5-9°, 1.4270, 0.8730, and a little of the above isomer. Allyl alc. and I in presence of  $\text{BF}_3 \cdot \text{Et}_2\text{O}$  gave mainly 2-allyloxy-2-methyl-3-butene-1-ol,  $b_p$  77-8°, 1.4630, 0.9002, while reaction with ROH-RONa gave mainly 1-allyloxy-2-methyl-3-butene-2-ol,  $b_p$  68.5-0.5°, 1.4455, 0.9164, and a little of the above isomer. G. M. K.

Distr: LE2c(j)/4E4j/4E3d

6  
2 May  
3

JF

DENISOV, A		7																																																																																																									
<p><b>The Melting of Steel KANM in a Basic Open-Hearth Furnace.</b>  A. Madyanov and A. Denisov. (Stal, 1940, No. 1, pp. 10-21). (In Russian). The melting of chromium-nickel, ball-bearing and other high-grade steels as usually done in acid open-hearth or electric furnaces takes rather a long time and the process can be carried out more rapidly by conducting it, under appropriate conditions, in a basic open-hearth furnace. The necessary conditions and some of the experience gained from two experimental heats are discussed. The process involves diffusional deoxidation, by means of which the need for adding ferro-alloys to deoxidize the steel with the consequent unavoidable and undesirable formation of non-metallic inclusions can be avoided. For efficient diffusional deoxidation in the practice under discussion, the slag composition had to be adjusted to give a fluid slag. When the carbon content had been reduced to within 0.10-0.15% of the final value, the slag was treated with a deoxidizing mixture (ferro-silicon, quick-lime and coke). This reduced the rate of elimination of the carbon. Another more active deoxidizing mixture, containing more ferro-silicon and coke, was then thrown on to the slag. Boiling was thereby stopped. Preheated ferro-chromium was added with further portions of the deoxidizing mixture, and the bath was stirred. The addition of the deoxidizing mixture is shown by the metal-composition/time curves to cause a slight increase in the phosphorus</p>																																																																																																											
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> <table border="1"> <thead> <tr> <th colspan="2">ASH-SLA</th> <th colspan="2">METALLURGICAL LITERATURE CLASSIFICATION</th> </tr> </thead> <tbody> <tr> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>5</td><td>6</td><td>7</td><td>8</td> </tr> <tr> <td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td>13</td><td>14</td><td>15</td><td>16</td> </tr> <tr> <td>17</td><td>18</td><td>19</td><td>20</td> </tr> <tr> <td>21</td><td>22</td><td>23</td><td>24</td> </tr> <tr> <td>25</td><td>26</td><td>27</td><td>28</td> </tr> <tr> <td>29</td><td>30</td><td>31</td><td>32</td> </tr> <tr> <td>33</td><td>34</td><td>35</td><td>36</td> </tr> <tr> <td>37</td><td>38</td><td>39</td><td>40</td> </tr> <tr> <td>41</td><td>42</td><td>43</td><td>44</td> </tr> <tr> <td>45</td><td>46</td><td>47</td><td>48</td> </tr> <tr> <td>49</td><td>50</td><td>51</td><td>52</td> </tr> <tr> <td>53</td><td>54</td><td>55</td><td>56</td> </tr> <tr> <td>57</td><td>58</td><td>59</td><td>60</td> </tr> <tr> <td>61</td><td>62</td><td>63</td><td>64</td> </tr> <tr> <td>65</td><td>66</td><td>67</td><td>68</td> </tr> <tr> <td>69</td><td>70</td><td>71</td><td>72</td> </tr> <tr> <td>73</td><td>74</td><td>75</td><td>76</td> </tr> <tr> <td>77</td><td>78</td><td>79</td><td>80</td> </tr> <tr> <td>81</td><td>82</td><td>83</td><td>84</td> </tr> <tr> <td>85</td><td>86</td><td>87</td><td>88</td> </tr> <tr> <td>89</td><td>90</td><td>91</td><td>92</td> </tr> <tr> <td>93</td><td>94</td><td>95</td><td>96</td> </tr> <tr> <td>97</td><td>98</td><td>99</td><td>100</td> </tr> </tbody> </table>				ASH-SLA		METALLURGICAL LITERATURE CLASSIFICATION		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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DENISOV, A.

Laying xylolite floors. Gor.i sel'.stoi. no.7:10-11 J1 '57.  
(MIRA 10:10)

(Floors)

*06/13/66*  
DENISOV, A., instruktor proizvodstvennogo obucheniya; SLOUSHCH, S., instruktor  
proizvodstvennogo obucheniya; ZAMAKH, B.; BORISOV, I., prepodavatel'.

Training automobile mechanics. Avt. transp. 36 no.1:29 Ja '58.

(MIRA 11:1)

1. Nachal'nik Liyepayskoy avtotransportnoy kontory No.4 (for Zamakh).
2. Voronezhskaya avtoshkola (for Borisov).  
(Automobile mechanics)

DENISOV, A.; KAMALETDINOV, Sh.

Machine accounting of copies of primary documents. Bukhg. uchët  
15 no.5:28-35 My '58. (MIRA 11:5)

(Machine accounting)

DENISOV, A.

Accounting for working time without a timekeeper. Sots. trud  
6 no.7:121-125 J1 '61. (MIRA 16:7)

1. Zamestitel' nachal'nika otдела Vsesoyuznogo proyektno-  
tekhnologicheskogo instituta Moskovskogo gorodskogo soveta  
narodnogo khozyaystva.  
(Moscow—Machine tool industry—Accounting)  
(Timekeeping(Labor))



DENISOV, A., morskoy ofitser zapasa

Outstanding worker in Russian navigation, Mor.flot 19 no.1:38-39  
Ja '59. (MIRA 12:3)  
(Kurganov, Nikolai Gavrilovich, 1725-1796)

DENISOV, A., kapitan pervogo ranga v otstavke

Expansion of astronomy methods of determining longitudes in  
navigation. Mor.flot 22 no.1:38 Ja '62. (MIRA 15:1)  
(Nautical astronomy)

DENISOV, A.

The first teacher of the Russian seamen. Mor. flot 24 no.9:42  
S '64. (MIRA 18:5)

DENISOV, A.

Methodology for developing maintenance norms for greasers.  
Biul. nauch. inform.: trud i zar. plata 5 no.9:14-19 '62.  
(MIRA 15:10)

(Machinery industry--Production standards)  
(Lubrication and lubricants)

DENISOV, Artem; POTAPOVA, M.S., red.

[Formula of the unexplored] Formula neizvedannogo. Moskva,  
Sovetskaiia Rossiia, 1965. 71 p. (MIRA 18:3)

DENISOV, A. A.

DENISOV, A. A.

Determining the propagation constant of surface TM waves propagated along cylindrical conductors having a ribbed, annular structure.

Trudy LPI no.181:68-74 '55.

(MIRA 10:1)

(Electric waves) (Electric conductors)

DENISOV, Aleksandr Aleksandrovich, kand.tekhn.nauk. dotsent; SHALYGIN, Igor'  
Vladimirovich, staryiy inzh.

Control network of an electromagnet using regulated silicon  
rectifiers. Izv.vys.ucheb.zav.; elektromekh. 8 no.9:1012-1021  
'65. (MIRA 18:10)

1. Kafedra elektrooborudovaniya promyshlennykh predpriyatiy Novoche-  
rkaasskogo politekhnicheskogo instituta (for Denisov). 2. laboratoriya  
avtomatizatsii proizvodstvennykh protsessov Novocheerkaasskogo politekha-  
nicheskogo instituta (for Shalygin).

KRIVONOS, F.F.; DEWISOV, A.A. (Smy).

Synthesis of benzene hexachloride in the studies of the chemistry  
club. Khim.v shkole 11 no.6:44-46 M-D '56. (MLRA 9:12)  
(Benzene hexachloride)



DENISOV, A.A. (g. Sumy)

Hydrolysis of cellulose. Khim. v shkole. no.2:55-57 Mr-Ap '58.  
(Hydrolysis) (Cellulose) (MIRA 11:3)

KAZINITSKIY, Mikhail Il'ich, inzh.; PLOTKIN, Naum Borisovich, inzh.;  
TOLCHINSKIY, Aleksandr Aleksandrovich, inzh.; CHAPLITSKIY,  
Vladimir Konstantinovich, inzh.; NASEDKIN, V.M., inzh., retsenzent;  
SIVITSKIY, K.P., inzh., retsenzent; KOTOVICH, B.M., dotsent,  
retsenzent; VOLCHANSKIY, R.A., kand.tekhn.nauk, nauchnyy red.;  
DENISOV, A.A., dotsent, nauchnyy red.; BILINSKIY, M.Ya., red.;  
RAKOV, S.I., tekhn.red.

[Handbook for collective farm construction foremen] Spravochnik  
kolkhoznogo desiatnika-stroitelia. Moskva, Vses.uchebno-pedagog.  
izd-vo Trudrezervizdat, 1959. 564 p. (MIRA 13:5)  
(Building)

VOROB'YEV, Vasilii Aleksandrovich, prof., doktor tekhn.nauk, zasluzhenyy  
deyatel' nauki i tekhniki RSFSR. Prinimali uchastiye: GLYBIN, V.S.,  
starshiy prepodavatel'; DENISOV, A.A., kand.tekhn.nauk, dotsent;  
KOMAR, A.G., kand.tekhn.nauk, dotsent; FEDOSEV, G.P., starshiy  
prepodavatel'. MARTYNOV, A.P., red.; VORONINA, R.K., tekhn.red.

[Building materials] Stroitel'nye materialy. Izd.3., rasshi-  
rennoe i perer. Moskva, Vysshaia shkola, 1962. 496 p.

(MIRA 15:5)

(Building materials)

L 23216-66 EWT(d)/EWP(lt)/EWP(1)  
 ACC NR: AP6013582 SOURCE CODE: UR/0144/65/000/010/1181/1182  
 AUTHOR: Avilov-Karnaukhov, B. N.; Bogush, A. G.; Gikis, A. F.; Drozdov, A. D.;  
 Malov, D. I.; Sinel'nikov, Ye. M.; Brusentsov, L. V.; Denisov, A. A.; Pal'shau, M. V.;  
 Polyakov, B. A.; Chernyavskiy, F. I.; Burok, V. S.; Gordayev, V. I.; Kazhdan, A. E.;  
 Kovalev, V. Ye.; Kurennyy, E. G.; Potapenko, V. Ya.  
 ORG: none  
 TITLE: Professor G. M. Kayalov on the occasion of his 60th birthday and 37 years of  
 pedagogical activities  
 SOURCE: Izvestiya vysshikh uchebnykh zavedeniy. Elektromekhanika, no. 10, 1965,  
 1181-1182  
 TOPIC TAGS: electric engineering personnel, academic personnel  
 ABSTRACT: Doctor of Engineering Sciences, Professor of RIIZhT  
 /Rostovskiy institut inzhenerov zheleznodorozhnogo transporta;  
 Rostov Institute of Railroad Engineers/, Georgiy Mikhaylovich  
 KAYALOV was born on 26 September 60 years ago. He began his  
 working career as a standby electrical construction worker at the  
 Novorossiysk cement factory. In 1929 he graduated from the  
 Novocherkassk Polytechnical Institute, and between 1928 and 1947  
 worked in the designing section of the "Elektroprom" trust. Sub-

Cord 1/2

L 23216-66  
ACC NR: AP6013582

sequently, he joined the Rostov department of the GPI Gosudarstvennyy proyektnyy institut; State Designing Institute/ "Tyazhpromelektro-proyekt" where he advanced from a technician of the designing department to its chief engineer. From 1933 to 1962 he was docent of the department of electrification of industrial enterprises of the NPI Novocherkasskiy politekhnicheskii institut imeni Sergo Ordzhonikidze; Novocherkassk Politechnic Institute im. Sergo Ordzhonikidze; he taught as professor until 1965 and presently is a professor of the RIIZhT. He published more than 70 scientific works, including studies of flywheel-containing electric motors, investigations of electrical loads of industrial enterprises, analyses of basic features of real load graphs, (including their probabilistic modeling), proposals for peak load calculation methods (based on the theory of mass servicing) and developments of methods for the calculation of extremal loads of heavy consumers, for the study of random graphs of reactive loads, for the evaluation of electric load fluctuations, and the like. G. M. KAYALOV was also active in the Party, professional, and scientific organizations. He is a holder of the "For Outstanding Work During the Great Patriotic War of 1941-1945 gg." medal and the "Badge of Honor"

decoration. Orig. art. has: 1 figure. [JPRS] 14

SUB CODE: 09, 05 / SUBM DATE: none

Card 2/2 28

L 44320-66 EWT(1)

ACC NR: AP6030158

SOURCE CODE: UR/0120/66/000/004/0204/0205

AUTHOR: Gol'denberg, L. G.; Denisov, A. A. 30  
B

ORG: Leningrad Polytechnical Institute (Leningradskiy politekhnicheskii institut)

TITLE: Regulated low-power, high-voltage source *1*

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1966, 204-205

TOPIC TAGS: power supply, *high voltage line*

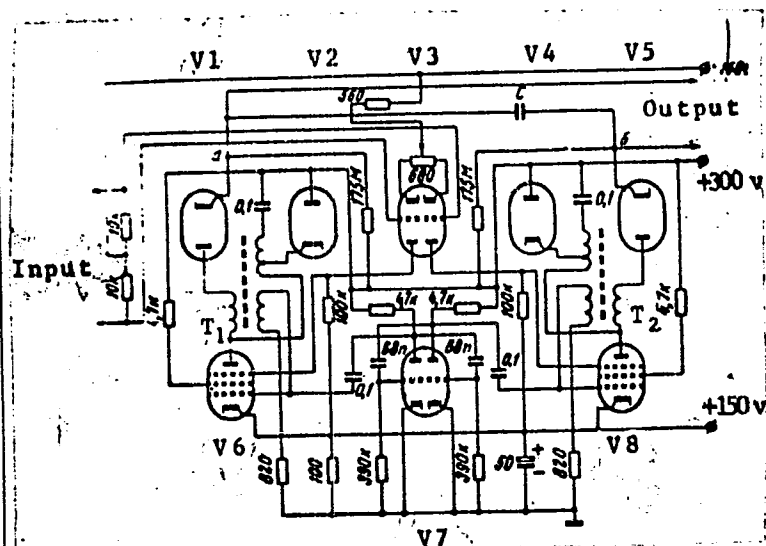
ABSTRACT: An adjustable high-voltage supply with an output voltage of up to 20 kv and a current of 0.1 mamp is described. The generator (see Fig. 1) is a balanced-bridge type with its output polarity controlled by the polarity of the input voltage. Positive feedback is obtained from separate windings of sweep transformers  $T_1$  and  $T_2$ . Tube V7 is a balanced multivibrator with a frequency of 18 kc; its output together with the feedback signal is applied to the grids of tubes V6 and V8. Tubes V2 and V4 are damping diodes, and V1 and V5 are rectifiers with output voltages of 12—13 kv without and 18—20 kv with positive feedback. Two salient features of the source are its stability for a wide range of component tolerances and its variable output voltage. The output voltage remains constant for resistor and

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UDC: 621.311.6

L 44320-66

ACC NR: AP6030158



capacitor tolerances of  $\pm 30\%$  and can be continuously varied from 0 to  $\pm 18$  kv by changing the cathode resistances of tube V3. Orig. art. has: 2 figures. [IV]

SUB CODE: 09/  
SUBM DATE: 02Jul65  
ORIG REF: 002  
ATD PRESS: 5072

Fig. 1. Voltage supply schematic

Card 2/2 blg

I. 07073-67

ACC NR: AP6019231

(N)

SOURCE CODE: UR/0144/66/000/002/0181/0186

AUTHOR: Denisov, A. A.; Sabadashev, V. P.

ORG: None

40  
B

TITLE: Magnetic switch and its application in remote control systems

SOURCE: IVUZ. Elektromekhanika, no. 2, 1966, 181-186

TOPIC TAGS: electric switch, remote control system, telemetry system

ABSTRACT: A magnetic switch consisting of a contactless cyclic distributor is described. Magnetic contacts replace electrical ones. A steel armature is secured to a rotating shaft, around the circumference of which are transformers with open magnetic circuits and two windings. The primary windings of all elements are connected in series to an AC power supply. As the shaft rotates it opens and closes the magnetic circuits of the working element secondaries. The primary advantages of a telemechanics system with a magnetic switch are almost unlimited service life of magnetic contacts; pulse durations long enough to operate an electromechanical relay; AC at commercial frequency can be used for switching; all elements are contactless. Orig. art. has: 3 formulas and 7 figures.

SUB CODE: 09/SUBM DATE: 13Feb64/ORIG REF: 001

Card 1/1 LC

UDC: 621.316.3+621.397



ACC NR: AP7004342

SOURCE CODE: UR/0144/66/000/010/1102/1114

AUTHOR: Denisov, A. A. (Candidate of technical sciences, Docent);  
Shalygin, I. V. (Senior engineer)

ORG: Novocherkassk Polytechnic Institute (Novocherkasskiy politekhnicheskii institut)

TITLE: Optimal current diagram in the circuit of a large-power impulse  
electromagnet

SOURCE: IVUZ. Elektromekhanika, no. 10, 1966, 1102-1114

TOPIC TAGS: electromagnet, pulse shape

ABSTRACT: The problem of ensuring quick action of an electromagnet with minimum armature-against-core striking force is solved by developing an optimal shape of current impulse in the magnet winding. Theoretical considerations show that: (a) the most desirable armature speed diagram is rectangular, (b) stepping up the force of attraction more than 4 times normal is inexpedient, and (c) the rectangular speed diagram is practically impossible because of electromagnetic and mechanical inertia; hence, a trapezoidal diagram is the most desirable in practice. The optimal current-

Card 1/2

UDC: 621.3.014.33 + 621.318.4

ACC NR: AP7004342

impulse shape can be ensured by applying a forced voltage impulse to the electro-magnet through a suitable transistor or technetron circuit. As Soviet-made transistors are not designed for high enough voltages and Soviet technetrons are not fabricated as yet, a thyristor controlled by a logic circuit was used. Transient processes were simulated on an analog computer. A large shell-type conic-plunger 150-kg-pull electromagnet was tested: a plot of final plunger speed vs. forcing time is shown. Conclusions: (1) The current-forcing time to armature-motion time ratio should be 0.1–0.4; (2) The optimal current-impulse shape permits reducing the striking force by 50%; (3) The simplest device for near-optimal shaping of the current impulse is the thyristor phase-controlled by a semiconductor circuit; (4) In complex cases involving variable-mass nonlinear electromagnetic mechanisms, simulation of transient processes on analog computers is recommended. Orig. art. has: 10 figures, 22 formulas, and 4 tables.

SUB CODE: 09, 20 / SUBM DATE: 06Jan66 / ORIG REF: 004 / OTH REF: 001

Card 2/2

ACC NR: AP7004783

SOURCE CODE: UR/0413/67/000/001/0096/0096

INVENTOR: Denisov, A.A.; Gol'denberg, L.G.; Reshetikhin, N.V.

ORG: none

TITLE: Electropneumatic (electrohydraulic) converter. Class 42, No. 190090 [announced by Leningrad Polytechnical Institute im. M.I. Kalinin (Leningradskiy politekhnicheskii institut)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 96

TOPIC TAGS: electropneumatic control, pneumatic device, hydraulic device, *ELECTRO MECHANIC CONVERTER*

ABSTRACT:

An Author Certificate has been issued for an electropneumatic (electrohydraulic) converter which employs the action of a homogeneous electrostatic or electromagnetic field on a jet of gas or of liquid, with preliminary application of a surface charge to the jet. The converter contains a jet-forming nozzle, corona-producing electrodes, a deflecting system, and receiving nozzles. These nozzles are symmetrically positioned in relation to the axis of the jet-forming nozzle, and the electrostatic or

Card 1/2

UDC: 681.142-525

ACC NR: AP7004783

electromagnetic deflecting system is placed in the interval between the receiving nozzles and the corona-producing electrodes. Converter action

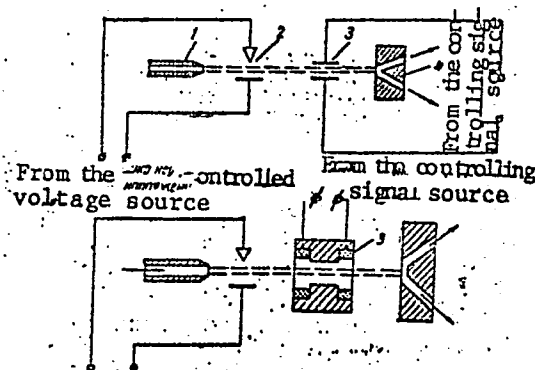


Fig. 1. Converter

1 - Nozzle; 2 - corona-producing electrodes; 3 - deflecting system; 4 - receiving nozzles.

is therefore increased and system reliability improved. Orig. art. has: 1 diagram. [JP]

SUB CODE: 13/ SUBM DATE: 11June65/ ATD PRESS: 5116

Card 2/2

DENISOV, Aleksandr Aleksandrovich, assistant

Effect of output on the consumption of energy by excavation  
sections of mines. Izv.vys.ucheb.zav.; elektro-mekh. 3 no.1:  
126-134 '60. (MIRA 13:5)

1. Kafedra elektrifikatsii promyshlennykh predpriyatiy  
Novocherkasskogo politekhnicheskogo instituta.  
(Electricity in mining)

DENISOV, Aleksandr.Aleksandrovich, assistant

Intercoupling of the operation of mechanisms and its effect on the  
load graph of a district underground substation. Izv. vys. ucheb.  
zav.; elektromekh. 3 no.4:102-110 '70. (MIRA 13:9)

1. Kafedra elektrifikatsii promyshlennykh predpriyatiy Novocherkasskogo  
politekhnicheskogo instituta.  
(Electric substations) (Electric machinery)

~~DENISOV~~, Aleksandr Aleksandrovich, kand. tekhn. nauk, ispolnyayushchiy obyazannosti  
dtsenta; SABADASHEV, Viktor Petrovich, kand. tekhn. nauk, dtsent

Device for signaling shaft rotation. Izv. vys. ucheb. zav.; elektromekh.  
8 no.5:599-601 '65. (MIRA 18:7)

1. Kafedra elektrifikatsii promyshlennykh predpriyatiy Novochoerkasskogo  
politekhnikheskogo instituta (for Denisov). 2. Kafedra avtomatiki i  
telemekhaniki Novochoerkasskogo politekhnikheskogo (for Sabadashev).

DENISOV, A. A.

Cand Tech Sci - (diss) "Determination of estimated electrical loads of section transformer substations of Donbass coal mines." Novochoerkassk, 1961. 27 pp with illustrations; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Donetsk Order of Labor Red Banner Polytechnic Inst); 200 copies; price not given; (KL, 6-61 sup, 216)



L 51856-65 EWT(d)/EPF(n)-2/EWP(v)/EWP(k)/EWP(h)/EWP(l) Pg-4/Pq-4/Pf-4/Pg-4/  
Pae-2/Pu-4/Pk-4/Pl-4 LJP(c) WW/BC

ACCESSION NR: AR4046569

S/0271/64/000/008/A025/A025  
62.501.1

SOURCE: Ref. zh. Avtomat., telemekh. i vychisl. tekhn. Svodnyy tom, Abs. 8A170

AUTHOR: Denisov, A. A.

TITLE: Mechanization of plotting the transients and frequency responses in automatic systems

CITED SOURCE: Uch. zap. aspirantov i soiskateley. Leningr. politekhn. in-t.  
Elektroizmerit. tekhn. i avtomatika. L., 1963, 79-85

TOPIC TAGS: automatic control, automatic control design, automatic control system, automatic control theory

TRANSLATION: A method is proposed for plotting amplitude-phase characteristics with a required accuracy by approximating a function of this form:

$$f(t) = h_k \left[ \frac{1}{2} + \frac{1}{\pi} \operatorname{Si} \pi (t - t_k) \right],$$

where  $h_k$  is the amplitude,  $t_k$  is the abscissa of the inflection point in the

Card 1/2

L 51856-65

ACCESSION NR: AR4046569

middle part of the function,  $\omega = \frac{d\phi(t)}{dt}$  at the same point. The method permits reducing the entire process of plotting a frequency response to a set of simple purely mechanical operations which can be performed by means of a slide rule and a protractor. A simple device consisting of a slide rule, a measuring ruler, and a protractor is suggested and described. The device permits fully mechanical plotting and obviates all intermediate writings. The same device permits mechanized plotting of a transient curve with a specified accuracy on the basis of the amplitude-phase characteristic. In all cases, the plotting of a transient or a frequency response takes only a few minutes. Bibliography: 1 title.

SUB CODE: DP, IE

ENCL: 00

Cord <sup>LL</sup> 2/2

L 27679-66 EWA(h)/ENT(1)

ACC NR: AT6004853

SOURCE CODE: UR/2563/65/000/255/0027/0033

AUTHOR: Denisov, A. A.

ORG: none \*

TITLE: Effect of the feedback-coil inductance upon the operation of the diode bridge converter in a frequency divider 25

SOURCE: \* Leningrad. Politekhnicheskiy institut. Trudy, no. 255, 1965.  
Radioelektronika (Radio electronics), 27-33

TOPIC TAGS: frequency divider, bridge converter, electric inductance, electric conduction, electronic feedback

ABSTRACT: A regenerative frequency divider with a diode bridge converter suggested by J. A. Fitzgerald (Electronic Engg., 1952, 295) is considered. The converter is represented by its equivalent circuit, and elementary Kirchhoff relations are applied to this circuit. It is found that, with a high enough inductance of the feedback circuit, the diodes are conducting during nearly the entire period. A corroborating experiment revealed (oscillograms shown) that the time of all four diodes non-conducting is very short. These final results are reported: (1) The converter

Cord 1/2

L 27679-66

ACC NR: AT6004853

operating conditions depend on the relations between the applied voltages and the circuit parameters (inductance, valve resistances, load resistance); (2) The time of all diodes conducting is largely determined by the feedback-coil inductance, its resistance, and forward resistance of the diode; (3) The duration of the all-diode conducting state is:  $T/2 < \tau < T$ , where  $T$  is the period of the output frequency; at  $L = 0$ , the duration will be  $T/2$ ; (4) When the  $E_1/E_2$  ratio is high, only two regions are possible: all diodes conducting and all diodes nonconducting; both odd and even ratios of division are possible. Orig. art. has: 5 figures and 43 formulas.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 001

Card 2/2 CC

L 27688-66 EWA(h)/EWT(1)

ACC NR: AT6004857

SOURCE CODE: UR/2563/65/000/255/0102/0106

AUTHOR: Denisov, A. A.

ORG: none

TITLE: Operation of the switching converter in a regenerative frequency divider

SOURCE: Leningrad. Politekhicheskii institut. Trudy, no. 255, 1965.

Radioelektronika (Radio electronics), 102-106

TOPIC TAGS: frequency divider, bridge converter, electronic circuit, switching circuit

ABSTRACT: This is a further report of this author's investigation of regenerative

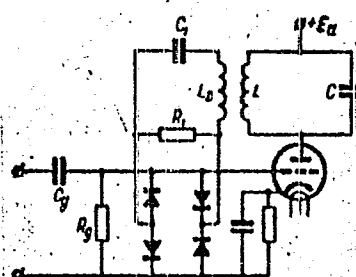


Fig. 1. Bridge converter circuit

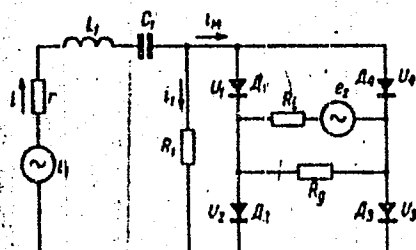


Fig 2. Equivalent circuit.  $L_1 = L_0 \left( 1 - \frac{M^2}{L_0 L} \right)$ ,  $e_1 = E_1 \sin(\omega t + \psi)$ ,  $e_2 = E_2 \sin n\omega t$

frequency dividers (same issue, pp. 27-33, Abstract AT6004853). A frequency divider with a shunt-type diode-bridge converter (see Fig. 1) and its equivalent circuit (see Fig. 2) are theoretically

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ACC NR: AT6004857

considered. When the feedback emf amplitude  $E_2$  exceeds the external emf  $E_1$  by several times, the desirable operating conditions (all-diodes conducting or nonconducting) are established. By applying the Kirchhoff laws to the equivalent circuit, a formula is developed which shows the conducting part of the time period and, hence, shows the feasibility of frequency division in the desired ratio. Adjustment of  $C_1$  and  $R_1$  can change the division ratio. Orig. art. has: 2 figures and 17 formulas.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 001

Card 2/2 AC

DENISOV, A.A.; BUTENKO, A.A.

Vacuum forming of thermoplastic parts. Mashinostroitel' no.12:  
26-27 D '64. (MIRA 18:2)

AVILOV-KARNAUKHOV, B.N.; BOGUSH, A.G.; GIKIS, A.F.; DROZDOV, A.D.;  
MALOV, D.I.; SINEL'NIKOV, Ye.M.; BRUSENTOV, L.V.; DENISOV, A.A.;  
PAL'SHAU, M.V.; POLYAKOV, F.I.; CHERNYAVSKIY, F.I.; BUROK, V.S.;  
GORDEYEV, V.I.; KAZHDAN, A.E.; KOVALEV, V.Ye.; KURENNYY, E.G.;  
POTAPENKO, V.Ya.

Professor Georgii Mikhailovich Kaialov, 1905- ; on his 60th  
birthday and the 37th anniversary of his theoretical and educa-  
tional work. Izv. vys. ucheb. zav.; elektromekh. 8 no.10:1181-  
1182 '65. (MIRA 18:11)



DENISOV, A.B.

Changes in venous pressure under the influence of stimulation  
of the interoceptors of the large intestine of patients with  
chronic colitis. Zdrav. Tadzh. 7 no. 2:64-50 Mr-Apr '60.

(MIRA 13:10)

1. Iz kafedry gosital'noy terapii (zav. - dotsent Kh.Kh. Mansurov)  
Stalinabadskogo medinstituta im. Abuali ibni Sino.  
(BLOOD PRESSURE) (INTESTINES--INNERVATION) (COLITIS)

DENISOV, A.B.; KOSTIN, V.S., kand.med.nauk

Data from percutaneous splenomanometry and splenoportography in chronic hepatitis and cirrhosis of the liver. Zdrav. Tadzh. 7 no.5:35-38 '60. (MIRA 13:12)

1. Iz kafedry gosspital'noy terapii (zav. - doktor med.nauk Kh.Kh. Mansurov) i kafedry gosspital'noy khirurgii (zav. - prof. N.Z. Monakov) Stalinabadskogo meditsinitshtuta imeni Abuali ibni Sino.  
(LIVER—DISEASES) (SPLEEN)

DENISOV, A.B.

Effect of stimulation of the interoceptors of the large intestine  
on the contraction ability of the heart in chronic colitis. Zdrav.  
Tadzh. 8 no.4:50-54 J1-Ag '61. (MIRA 14:10)

1. Iz kafedry gosspital'noy terapii (zav. - doktor med.nauk Kh.Kh.  
Mansurov) Stalinabadskogo meditsinskogo instituta imeni Abulali ibni  
Sino.

(INTESTINES—INNERVATION)  
(COLITIS)

(HEART—MUSCLE)

MANBUROV, Ed.Kh.; DENISOV, A.B.

Pathogenesis of intrahepatic portal hypertension in cirrhosis  
of the liver. Trudy Inst. kraev. med. AN Tadzh. SSR no.1:152-  
163 162. (MIRA 17:5)

DENISOV, A.B.; KOSTIN, V.S.

State of portal pressure in some diseases of the liver. Trudy Inst.  
krazn. med. AN Tadzh. SSR no.1:178-193 '82. (MIRA 17:5)

BAYEV, N.V.; BOBROV, Ye.G.; DEMIDOV, G.A.; DENISOV, A.D.; ZHUKOV, N.Ya.;  
LELEKOV, Yu.S.; POZDNYAKOV, I.M.; POLKOVNIKOV, B.M.; TRIBURT, I.I.;  
TYURIKOV, A.A.; SHESTAKOV, A.I., inzh.; PESKOVA, L.N., red.;  
KHITROVA, N.A., tekhn. red.

[Advanced technology on railroads] Peredovaia tekhnologiya na  
zheleznoi doroze. Moskva, Vses. izdatel'sko-poligr. ob"edine-  
nie M-va putei soobshchenia, 1961. 84 p. (MIRA 14:12)  
(Railroads)

KOMISSAROV, Sergey Aleksandrovich; DENISOV, Aleksey Dmitriyevich;  
TEREKHOV, V.D., red.; BLISENKO, M.A., techn. red.

[Let us increase the output of livestock produce] Uveli-  
chim proizvodstvo produktov zhivotnovodstva. Moskva, Gos-  
kul'tprosvetizdat, 1955. 53 p. (MIRA 16:8)  
(Stock and stockbreeding)

DENISOV, A.D.; BALAKIN, V.M., red.; DMITRIYEV, I.N., red.

[Loose housing of cattle] Bespriviaznoe sodержanie skota;  
sbornik statei. Moskva, Sel'khozizdat, 1963. 389 p.  
(MIRA 17:6)



LATATUYEV, V.I.; DENISOV, A.D.; KAZAKOVA, V.P.; PESHKOV, O.L.

Use of hydrazine sulfate as a reducing agent in chemical nickel plating process. Izv.vys.ucheb.zav.; khim.i khim.tekh. 7 no.6:973-975 '64. (MIRA 18:5)

1. Altayskiy politekhnicheskii institut imeni Polzunova, kafedra neorganicheskoy i analiticheskoy khimii.

LATATUYEV, V.I., kand. tekhn. nauk; DENISOV, A.D.; PESHKOV, O.L.

Using hydrazine sulfate for chemical nickel plating of parts.  
Vest. mashinostr. 44 no.8:32 Ag. '64.

(MIRA 17:9)

L 52310-65 ENT(m)/EWP(i)/EWP(t)/EWP(b) JD

ACCESSION NR: AP5008806

S/0080/65/038/003/0534/0537

AUTHOR: Latatuyev, V. I.; Denisov, A. D.; Peshkov, O. L.; Dorfman, E. M.; Zakabunina, N. I. 14  
B

TITLE: Effect of the addition of certain salts on the rate of chemical plating with nickel 18

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 3, 1965, 534-537

TOPIC TAGS: nickel plating, nickel, additive, reagent impurity

ABSTRACT: Chemical nickel plating is widely used because it gives hard and uniformly thick nickel coatings on irregularly shaped metal articles. The effect which impurities in the starting reagents, water and electrolyzer material as well as of those which arise during the plating process have on the rate of chemical plating was investigated. The study covered various concentrations of  $\text{Na}_2\text{SO}_4$ ,  $(\text{NH}_4)_2\text{SO}_4$  and  $\text{NH}_4\text{F}$  along with impurities present in commercial samples of these materials. Sodium sulfate, particularly at concentrations higher than 200 grams per liter, has a deleterious effect on the rate because it catalyzes

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L 52310-65

ACCESSION NR: AP5008806

decomposition of sodium polyphosphate. Ammonium sulfate up to a concentration of 200 grams per liter does affect the rate of the nickel plating process. Ammonium fluoride accelerates the nickel plating process but the obtained nickel platings were of inferior quality. The impurities commonly present in commercial nickel sulfate do not alter the normal mode of the nickel plating process. Commercial sodium hypophosphate (with sodium acetate) can be used satisfactorily in the process of chemical nickel plating; however, preremoval of phosphite is desirable. Orig. art. has: 4 tables.

ASSOCIATION: none

SUBMITTED: 26Apr63

ENCL: 00

SUB CODE: MM

NO REF SOV: 008

OTHER: 000

Card <sup>LL</sup> 2/2

LATATUYEV, V.I., kand. tekhn. nauk, dotsent; DENISOV, A.D.

Using nickel hyposphite in chemical nickel coating. Vest. mashi-  
nostr. 45 no.5:51 My '65. (MIFA 18:6)

ACC NR:	AP6035032	(A)	SOURCE CODE:	UR/0122/66/000/009/0048/0049
AUTHOR:	Latatuyev, V. I. (Candidate of technical sciences, Docent); Denisov, A. D.			
ORG:	none			
TITLE:	New alkaline composition for chemical nickel plating			
SOURCE:	Vestnik mashinostroyeniya, no. 9, 1966, 48-49			
TOPIC TAGS:	metal plating, electrolytic deposition, electrolyte			
ABSTRACT:	<p>The samples used in the experiments were of Type 08 steel and copper which, before chemical nickel plating, were subjected to the usual preparation: electrochemical degreasing and pickling in hydrochloric acid. A table shows the results of experiments aimed at determining the optimum concentration of ammonium sulfate in chemical nickel plating. The initial conditions were the following: concentration of nickel hypophosphite 15 grams/liter; <math>t = 80-85^{\circ}\text{C}</math>; <math>\text{pH} = 8.2</math>; duration of experiment 1 hour. Under these conditions, the best results were obtained with a concentration of ammonium sulfate equal to 30 grams/liter. Variation of the content of nickel hypophosphite showed that a concentration of 15 grams/liter was optimum. The investigations showed the great effect of the acidity of the solution on the rate of nickel plating. Thus, at a <math>\text{pH}</math> of 6, the coating rate was 6 microns/hour at <math>80-85^{\circ}\text{C}</math>; at a <math>\text{pH}</math> of 7-7.2, the rate was 22-23 microns/hour. In conclusion, the following were</p>			
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ACC NR: AP6035032

found to be optimum conditions for the process using ammonium sulfate in an alkaline medium: 15 grams/liter  $\text{Ni}(\text{H}_2\text{PO}_2)_2$ ; 30 grams/liter  $(\text{NH}_4)_2\text{SO}_4$ ; pH = 8.2-8.5 (regulated with 25%  $\text{NH}_4\text{OH}$ ); t = 80-85°C; coating rate 24 microns/hour. Orig. art. has: 2 tables

SUB CODE: 11,07/ SUBM DATE: none/ ORIG REF: 004

Card 2/2

DENISOV, A.F., starshiy mashinist (depo Kuzalinsk, Orenburgskaya doroga).

304,000 kilometers without wheel assembly repairs. Elek.1 teplo. tiaga  
no.7:28-30 J1 '57. (MLRA 10:9)

1. Brigada teplovoza TE2-235.  
(Locomotives--Maintenance and repair)



DENISOV, A.F., inzh.; PRIFUZHALOV, V.Ya., inzh.

Automatic skip hoisting. Bezop.truda v prom. 3 no.12:  
27-28 D '59. (MIRA 13:4)

1. Shakhta "Svernyy Maganok," Kuzbass.  
(Kuznetsk Basin--Mine hoisting)

VLASOVA, I.V.; ~~DENISOV~~, A.F.; ZIMINA, G.V.; MARUNINA, N.I.; NALIMOV, V.V.;  
SUKHOV, G.V.

Application of consecutive analysis to radiometric measurements.  
Zav.lab. 27 no.10:1261-1264 '61. (MIRA 14:10)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut  
redkometallicheskey promyshlennosti.  
(Radioisotopes).

SIROTKIN, Z.I., inzh.; BEKHTEREV, Yu.I., inzh.; DENISOV, A.G., inzh.

BelAZ-540 ~~dump~~ truck. Gor.zhur. no.4:57-58 Ap '62. (MIRA 15:4)

1. Belorusskiy avtozavod.

(Dump trucks)

MELESHKIN, S.M., gornyy inzhener; BERLYAND, S.S., gornyy inzhener;  
SIROTKIN, Z.L., inzh.; DENISOV, A.G., inzh.; TERNOVSKIY, G.I., inzh.;  
BEKHTEREV, Yu.I., inzh.; ZOTOV, A.V., inzh.; IVANOV, E.I., inzh.;  
VASIL'YEV, Ye.A., inzh.; SOLOV'YEVA, L.G., inzh.; D'YACHENKO, V.F.,  
inzh.

Replies to V.V. Shan'ko's article "Efficient limits of using  
truck haulage in open pits." Gor. zhur. no.1:75-77 Ja '62.

(MIRA 15:7)

1. Gosudarstvennyy nauchno-ekonomicheskiiy sovet Soveta Ministrov  
SSSR (for Meleshkin). 2. Promtransproyekt Gosstroya SSSR (for  
Berlyand). 3. Belorusskiy avtozavod (for Sirotkin, Denisov,  
Ternovskiy, Bekhterev, Zotov, Ivanov). 4. Gosudarstvennyy  
institut po proyektirovaniyu razrabotki rudnykh mestorozhdeniy  
v yuzhnykh rayonov SSSR, Khar'kov (for Vasil'yev, Solov'yeva,  
D'yachenko).

(Mine haulage)  
(Shan'ko, V.V.)

SIROTKIN, Z.I.; DENISOV, A.G.

Future standard types of high-capacity motortrucks for mines  
designed at the Belorusskii Automobile Plant. Avt.prom. 28 no.8:5-7  
Ag '62. (MIRA 16:3)

1. Belorusskiy avtozavod.

(Minsk--Motortrucks)

DENISOV, Aleksandr Gavrilovich; KAZAREZ, Aleksey Nikolayevich;  
SIROTKIN, Zalya L'vovich; TERNOVSKIY, Genrikh Ivanovich;  
SHUMSKIY, Mechislav Frantsevich; LESNYAKOV, F.I., red.;  
GALAKTIONOVA, Ye.N., tekhn. red.

[MAZ-525 dump truck; its design and operation] Avtomobil'-  
samosval MAZ-525; ustroistvo i ekspluatatsiia. Moskva,  
Avtotransizdat, 1963. 166 p. (MIRA 16:10)  
(Dump trucks)

361-31  
S/109/62/007/008/010/015  
D409/D301

9.4231

AUTHORS:

Rapoport, G.N. and Denisov, A.I.

TITLE:

A two-cascade backward-wave amplifier in the case of strong signals

PERIODICAL:

Radiotekhnika i elektronika, v. 7, no. 8, 1962, 1361-1366

TEXT:

The results are given of numerical calculations of strong signal amplification in a two-cascade backward-wave amplifier. A comparison with a single-cascade amplifier is made. The numerical integration of the nonlinear equations was performed on the electronic computer "Kiyev". The phases and velocities of the electrons which passed through the first cascade, were stored in the computer memory and used as initial data for calculating the second cascade. This amounted to determination of the dependence of the cascade-length  $x_3$  on the output amplitude  $\delta_2$ . It was necessary to perform a series of trial calculations, followed by interpolation. Owing to the great volume of calculations, the effect of the space charge was

Card 1/3

1. DENISOV, A. I., PROF.
2. USSR (600)
4. Science
7. Foreign scientists' views on Soviet science., Priroda, 41, No.11,1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.



S/109/62/007/008/010/015  
D409/D301

A two-cascade backward-wave ...

neglected and other simplifying assumptions were made. The results show that the first cascade operates in an almost linear regime. A figure shows the dependence of the total gain  $G$  of the amplifier, on the velocity parameter  $b$ . It was found that in the case of strong signals, the gain and bandwidth change little if the ratio  $I/I_{st2}$  (operating current to starting current) varies from 0.53 to 0.96. From another diagram it is evident that with  $I/I_{st2} = 0.8$ , the saturation power of the amplifier is  $2CIV$  approximately ( $C$  being the gain parameter and  $V$  the accelerating voltage); this is more than the maximum power of an oscillator for the same parameter-values. The nonlinear effects in the case of a strong signal, are to a large extent analogous in one-cascade and two-cascade amplifiers. A comparison of results shows that the two-cascade amplifier gives higher gain than the one-cascade amplifier; this applies to both strong and weak signals. On the other hand, power saturation at the output is more pronounced in the two-cascade amplifier. In order to provide greater band-width, it is convenient to make the first cascade shorter than the second. Under near-saturation conditions,

Card 2/3

A two-cascade backward-wave ...

S/109/62/007/008/010/015  
D409/D301

stability is preserved even in the 1<sup>st</sup>-region. Transition from the  
amplifying to the synchronization regime is not accompanied by a  
sharp change in output power. There are 7 figures.

SUBMITTED: October 9, 1961

Card 3/3

DENISOV, A. I.

49-6-20/21

AUTHOR: Denisov, A. I.

TITLE: On the propagation of dust and gases from chimneys.  
(O rasprostraneni pyli i gazov iz dymovykh trub).

PERIODICAL: "Izvestiya Akademii Nauk, Seriya Geofizicheskaya"  
(Bulletin of the Ac.Sc., Geophysics Series), 1957, No.6,  
pp. 834-837 (U.S.S.R.)

ABSTRACT: In designing factory chimneys it is necessary to select the parameters in such a way that the pollution of the atmosphere should not exceed the value specified by the health services. It is, therefore, necessary to determine the distribution of the concentration of admixtures in the atmosphere in the presence at a height  $h$  of a stationary point source of an output of  $Q$ ; the admixtures in the atmosphere in the given case consist either of powder-like smoke settling in the gravitational field with a stable speed  $w$  or a gas for which the effect of settling is usually not of great importance. A number of papers are devoted to this subject. Of these the most important are those of Bosanquet, C.H. and Pearson, J.L. (5 and 6); the advantage of the work of Bosanquet and Pearson consists in the fact that they assume that the coefficient of vertical diffusion increases with altitude according to the linear

Card 1/2

49-6-20/21

On the propagation of dust and gases from chimneys. (Cont.)

law  $K_z = b_z u_z$ ; this law corresponds to reality in the case of a zero temperature gradient. Unfortunately, due to their artificial assumption, they obtain an expression which is valid only for the above-ground concentration of a weightless admixture. The author shows in this paper that a solution can easily be obtained which does not involve this drawback. The derived relations are also expressed in the form of a graph, Fig.1, p.836. The graph, Fig.3, p.837, gives the curves of the geometrical location of the points of the maximum relative concentration. A characteristic feature is the fact that there is rapid approximation of the relative maximum of the smoke concentration towards the ground surface on moving away from the source in the direction of the wind, even without any gravitational effects. There are 5 figures and 7 references, 2 of which are Slavic.

Card 2/2

SUBMITTED: January 25, 1957.

ASSOCIATION: Institute of Applied Geophysics, Ac.Sc., U.S.S.R.  
(Akademiya Nauk SSSR Institut Prikladnoy Geofiziki).

AVAILABLE: Library of Congress

DENISOV, A. I.

27247. DENISOV, A. I.-- Neobkhodima rekonstruktsiya Vinogradnikov v ashkhabadskoy oblasti. Bincdelie i vinogradarstvo SSSR, 1949, No. 8, s. 19-20.

SO: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949

DENISOV, A. I.

Mechanized roof caving in mine shafts. Moskva, Ugletkhizdat, 1949. 31 p. (50-18990)

TN283.D38

1. Shaft sinking. 2. Coal mines and mining.

DENISOV, A. I.

Dissertation: "Investigation of Mortar for Walls and Facings of High Buildings." Cand  
Tech Sci, Moscow Construction Engineering Inst, Moscow, 1953. (Referativnyy Zhurnal--  
Khimiya, Moscow, No 4, Feb 54)

SO: SUM 243, 19 Oct 54

S/081/62/000/002/079/10  
B150/B101

AUTHOR: Denisov, A. I.

TITLE: The phenomenon of "self-curing" of cements of constructional mortars and concretes

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1962, 392 - 393, abstract 2K362 (Sb. Mosk. inzh.-stroit in-t, no. 18, 1960, 37 - 44)

TEXT: A brief survey is made of tests on "self-curing" concrete in samples and structures and results are given of experiments made with repeated crushing of mortar cubes with edges 5 cm long in ordinary Portland cement, hydrophobic Portland cement and in mixed hydrophobic Portland cements with 10% to 20% of clay and clinker added during grinding. The test of the sample under pressure was stopped at the moment when disintegration began to occur under the effect of the pressure drop. After testing, the samples (as often happens) preserved their general coherence and correct shape. The samples were then dried to a fixed weight and again tested under pressure with the same direction of compression. The samples which pre-  
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S/08:/62/000/002/072/101  
B150/B101

The phenomenon of "self-curing"...

served their shape in the second test were kept under water for 5 days and again subjected to a pressure test. The result disclosed that a part of the samples re-tested showed greater strength than in the first test. It was shown particularly clearly that "self-curing" does occur in mortars of hydrophobic Portland cement. [Abstracter's note: Complete translation.]

Card 2/2

CHUBOV, P.P., veterinarnyy vrach (Starominskiy rayon, Krasnodarskogo kraya);  
DENISOV, A.I., veterinarnyy vrach (Starominskiy rayon, Krasnodarskogo  
kraya)

Provocation method for controlling brucellosis of animals on farms.  
Veterinariia 40 no.9:16-17 S '63. (MIRA 17:1)

26806  
S/142/61/004/002/008/010  
E192/E382

9,4230


AUTHOR: Denisov, A.I.

TITLE: Calculation of the Gain of a Sectionalised Travelling-wave Tube (TWT)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1961, Vol. 4, No. 2, pp. 212 - 215

TEXT: In many cases it is impossible to use an internal attenuator-absorber in a TWT for the purpose of eliminating its instability. On the other hand, if external attenuators are used, the net result is a sectionalised TWT (Ref. 1 - J.D. Pearson, H.S. Cockroft - A 20 kW Pulsed Travelling-wave Tube, PTEE, 1958, 105, No. 10, 458) and in this case it is interesting to consider the influence of the length of the drift space on the gain of the tube. The case when both sections of the tube are comparatively long was considered in Ref. 2 - Pearce, G.R., Travelling-wave Tubes, pub. Sovetskoye radio, 1952, IX) and it was found that at small QC it is desirable to reduce the drift length to a minimum in order to increase the gain. In the case when the normalised lengths

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X

26806  
S/142/61/004/002/008/010  
E192/E382

Calculation of the Gain ....

of the bunching and the output sections  $CN_1$  and  $CN_3$  (see Ref. 2) do not exceed 0.5, it is necessary to take into account all the three waves in both sections. In the following, it is assumed that both the sections of the delay system of the tube have identical coupling impedances and dissipation. The drift length  $CN_2$  and the effective drift length  $CN_4$  (measured from the centre of the bunching section to the centre of the output section) are also taken into account. Now, if  $CN_1$  and  $CN_3$  are sufficiently small, it is possible to give an approximate analysis based on the fact that the superposition of the three waves in the bunching section results in a voltage wave of almost constant amplitude, while in the output section the amplitude of the alternating current component changes comparatively little. The sectionalised TWT can thus be regarded as a two-stage klystron with travelling waves. The determination of the gain of such a tube can be based on the equations quoted in Ref. 3 (Rapoport, G.N. - IVUZ, Radiotekhnika, 1958, Vol. 1, No.5, 599)  
Card 2/8